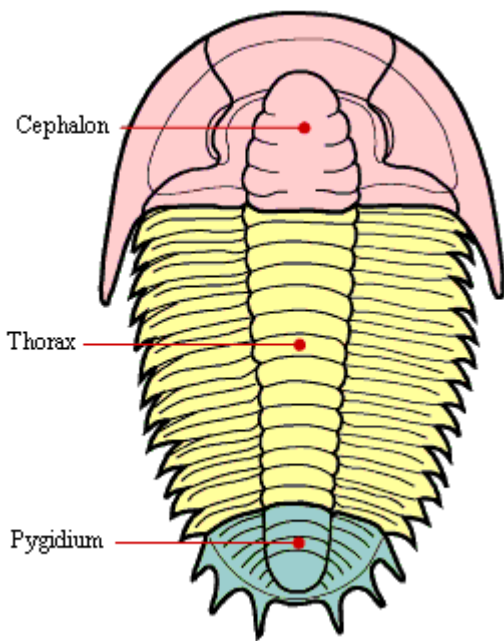


The Trilobite Story

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Trilobites are an ancient order of creature that lived from about 540 million years ago and became extinct 250 million years ago. They all have the same basic body shape that is composed of: The **cephalon** or head shield, a segmented **thorax** (upper body or chest) and the **pygidium** (tail shield). Trilobites are amongst the first hard-shelled arthropods, a type of animal with an armoured segmented body and, in many cases, multiple pairs of legs working in co-ordination to propel their bodies in various directions. They were able to crawl over the sea floor while scavenging for food particles or swim to catch their prey.

The fossil record is comprised of about 17000 different species all thought to have been marine animals.

The largest species grew up to 80cm in length, but most fossil specimens can fit in the palm of your hand. Some specimens are prepared so as to highlight their intricate eye stalks and armour plating.

Trilobites have no living descendants but it is commonly thought that Horse Shoe Crabs may be distantly related. Interestingly these crabs have a blue blood system based on copper, not a red blood system based on iron, as in humans or many other modern day animals.



This drawing shows how trilobites may have looked in their natural habitat.

Even the earliest trilobites had complex, compound eyes with lenses made of calcite, suggesting that arthropod eyes and those of other animals could have developed before the Cambrian period, about 570 million years ago.

The antennae suspected to have been present in most trilobites were highly flexible allowing them to be retracted when the trilobite rolled up into a ball, probably as a defence mechanism. The antennae may be similar to those in other arthropods and as such could have sensed touch, water motion, heat, vibration and especially smell, making these creatures very successful in exploiting various niches of the ancient world long before dinosaurs.